

Improvement to dispensers of adhesive tape

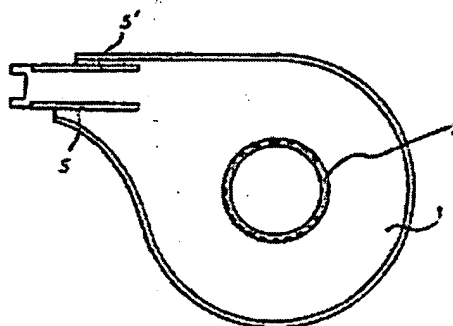
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Abstract of FR2643351

Ergonomic applicator device for adhesive tape, of the type comprising, mounted between two holding flanges, a hub on which is rotatably inserted a reel of the said tape, and a roller exerting a pressure on the said tape when the latter is laid down on a support unrolling from the said reel, characterised in that the axis of the said roller and the axis of the said reel are perpendicular so that, since the said tape undergoes a twist through 90 DEG, the device is held by the user in the same position as a felt-tip marker pen with a tapered rectangular cross-section tip.



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(12) **APPLICATION FOR PATENT OF INVENTION**

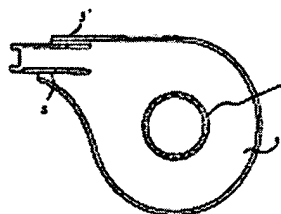
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(30) Priority:	(72) Inventor(s): Jackie de Ruyter; Daniel Burger.
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(54) Improvement of adhesive tape dispensers.

(57)

Ergonomic applicator device for adhesive tape, of the type comprising, mounted between two holding flanges, a hub on which is rotatably inserted a reel of the said tape, and a roller exerting a pressure on the said tape when the latter is laid down on a support unrolling from the said reel, characterised in that the axis of the said roller and the axis of the said reel are perpendicular so that, since the said tape undergoes a twist through 90 DEG, the device is held by the user in the same position as a felt-tip marker pen with a tapered rectangular cross-section tip.



The present invention concerns a new device for the application of an adhesive tape onto a support, possessing a set of characteristics which make it exceptionally attractive: it is excessively simple although extremely efficient and consequently so inexpensive that one can place it in the category of disposable devices after single usage. Moreover, its design makes it exceptionally convenient to the point that one can attribute to it the ergonomic quality. This device can be used for any type of adhesive tape, but it finds particular usefulness in the application of an adhesive tape very recently put on the market and intended to deposit colored "fluorescent" tapes on a support intended to attract attention to a particular passage of a text or design or to deposit white strips intended to mask other passages.

The special nature of this new type of tape is to have only a very thin layer of adhesive, since its purpose is only to mask and not to maintain. Therefore, it must be made so that the tape, once deposited, does not slide on its support at the moment of cutting when generally a traction is applied to it. The device according to the invention also assures a function of holding that avoids this risk.

Since this tape is to be deposited on the support in place of highlighting with a marker consisting of a felt tip with a tapered rectangular section, the necessity of convenience to be observed for the new device consisted in providing it with a shape and structure such that the user can handle it in the same way as a marker, instead of displacing it in the manner of a roller unrolling a classical adhesive tape.

For this purpose, according to the invention, the ergonomic applicator device for adhesive tape, of a type which has mounted between two holding flanges a means on which a reel of the said tape is inserted rotatably and a roller applying pressure on the said tape when it is deposited on a support unrolling from the said reel, is characterized by the fact that the axis of the said roller is perpendicular to that of the said reel so that the said tape, undergoing a twist of 90° , the device is held by the user in the same position as a felt-tip marker with a tapered rectangular cross-section.

It is appropriate to point out that adhesive tape applicator devices having a pressing roller have already been proposed. Accordingly, some such devices are described in French Patents 1 528 012, 1 591 222, 71 044 38, 71 04 595 and 72 06 414. In all cases, however, these devices have in common the characteristic that the axis of the pressing roller is always parallel to the axis of unrolling of the tape reel, which imposes

on the user a movement different from that of writing or of drawing and, as such, an unnatural one. Moreover, the majority of these devices are complicated, requiring an additional maneuver for the use of the roller.

On the contrary, the device according to the invention is handled with the same movements as those of normal writing and drawing without any effort.

After depositing the tape section on the support, to emphasize, for example, a phrase of a text, the cutting of the tape is carried out by turning the device 180° around the cutting edge, which, always exercising a pressure on the tape ensures that it holds without sliding. In order to facilitate this turn, the external face of the flange holding this edge has preferably a rounded edge which avoids the risk of damaging the support.

The device according to the invention, composed of only three pieces locked into one another, is simple and cheap to produce, and, consequently, although reusable for replacing the tape, can be considered as disposable.

The invention will now be described with reference to a preferred practical embodiment with the aid of the attached drawing, on which:

Figure 1 represents the lower flange of the device,

Figure 2 shows the upper flange and,

Figure 3 represents a partial transverse cut along a horizontal plane going through the axis of the reel, leaving the said reel and roller uncut.

On this drawing, the three constituting elements of the device were designated as follows:

Number 1 represents the lower flange of the device, having a female portion 2 of the hub that receives the tape reel 3, intended to receive the male portion 10 which is joined to flange 4 by locking.

Number 4 represents the upper flange, having a pair of parallel guide ribs 5, 5' and a clamp 6 preferably molded with the said flange in opening 7 of which the axis 8 of roller 9 is locked.

Number 9 represents the pressing roller below which tape **R** unrolls.

According to the invention, axis 8 is perpendicular to axis **XX'** of reel 3.

The edge 11 of flange 4 serves as a cutting system for tape **R** by turning the device by 180° after usage. The edge 12 located on the outside face of flange 4 serves to facilitate this turning.

In order to permit utilization of the same device with different tape widths, the hub 2-10 may have locking hubs 13-13' at two levels. This hub may also have means for braking of reel 3.

PATENT CLAIMS

1. Ergonomic applicator device for adhesive tape of the type comprising, mounted between two holding flanges 1 and 4, a hub 2-10 on which a reel 13 of the said tape is rotatably inserted, and a roller 9 exercising a pressure on the said tape when the latter is laid down on a support unrolling from the said reel, characterized by the fact that the axis of the said roller 9 and the axis of the said reel 13 are perpendicular, so that, since the said tape undergoes a twist of 90°, the device is held by the user in the same position as a felt-tip marker with a tapered rectangular cross-section tip.
2. Applicator according to Claim 1, characterized by the fact that one of the said flanges 1-4 having a cutting edge 11 of the section of the tape deposited on the supported, the exterior face of the said flange has above the said edge a shoulder forming a rounded edge which permits, when the device is turned by 180° around the said edge, on the one hand cutting the said tape and on the other hand exercising a pressure on the deposited section of the tape, maintaining it in place without sliding on the support at the time of the cutting operation.
3. Applicator according to Claims 1 and 2, characterized by the fact that the internal face of one of the two flanges has two parallel guide ribs 5, 5' for the said tape toward the said roller.
4. Applicator according to Claims 1 to 3, characterized by the fact that the axis 8 of the said roller is locked in a clamp 6-7 molded together with one of the said flanges.
5. Applicator according to any of Claims 1 to 4, characterized by the fact that the said flanges are joined by locking of the male part of the hub carried by a first flange into the female part by the second flange.
6. Applicator according to any of Claims 1 to 5, characterized by the fact that means of braking of the roller are provided on the hub.

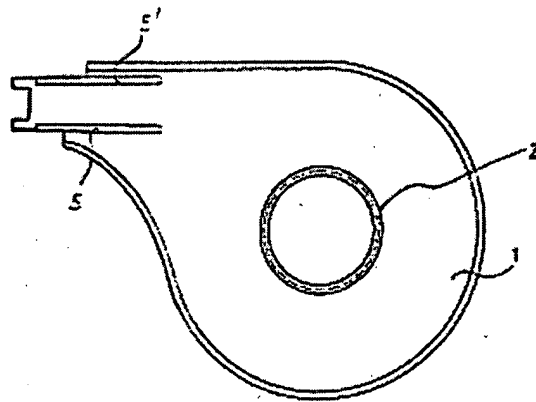


fig. 1

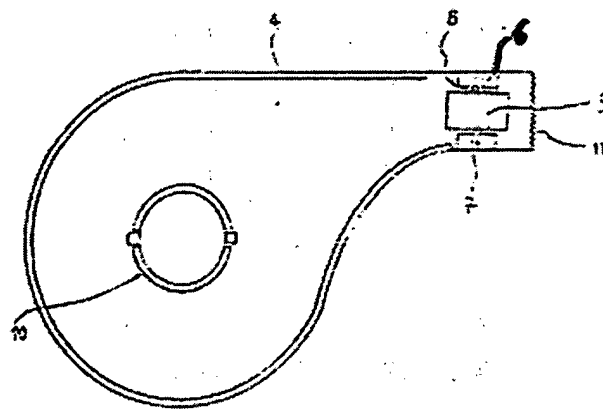


fig. 2

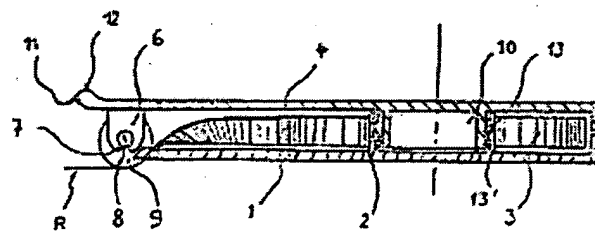


fig. 3